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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/573,803	03/28/2006	Florian Dotz	288248US0PCT	9379
22850 7590 07/30/2009 OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER WILSON, MICHAEL H	
			ART UNIT	PAPER NUMBER
			1794	
			NOTIFICATION DATE	DELIVERY MODE
			07/30/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/573,803	Applicant(s) DOTZ ET AL.	
	Examiner MICHAEL WILSON	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,4 and 7-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3 and 7-21 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This Office action is in response to Applicant's amendment filed 13 April, 2009, which cancels claims 2, 5, and 6, amends claims 13, 4, 7-18, and adds new claims 19-21.

Claims 1, 3, 4, and 7-21 are pending.

2. The objection to claim 12 is withdrawn due to applicants amending of the claim in the reply filed 13 April, 2009.

3. The rejection of under 35 U.S.C. 112, second paragraph of claims 1-4 and 7-18, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention is withdrawn due to applicants amending of the claims in the reply filed 13 April, 2009.

4. The rejection under 35 U.S.C. 102(b) of claims 1, 3, 4, 7-13, 14, 15, and 17 as being anticipated by Tagami et al. (US 2003/0054200 A1), is overcome due to Applicant's amending of the claims in the reply filed 13 April, 2009.

5. The rejection(s) under 35 U.S.C. 103(a) of claims 10, 14, 16 and 18 as being unpatentable over Tagami et al. (US 2003/0054200 A1) in view of Nishi et al. (US 2001/0004190 A1) is overcome due to applicant's amending of the claims in the reply filed 13 April, 2009.

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6. The rejection under 35 U.S.C. 102(e) of claims 1-4, 7-9, and 11-13 as being anticipated by Cho et al. (US 2005/0067955 A1), is overcome due to Applicant's amending of the claims in the reply filed 13 April, 2009.

7. The rejection(s) under 35 U.S.C. 103(a) of claims 1-4, 7-15, and 17 as being unpatentable over Hosokawa et al. (JP 2002/069044 A) is overcome due to applicant's amending of the claims in the reply filed 13 April, 2009.

8. The rejection(s) under 35 U.S.C. 103(a) of claims 10, 14, 16 and 18 as being unpatentable over Hosokawa et al. (JP 2002/069044 A) in view of Nishi et al. (US 2001/0004190 A1) is overcome due to applicant's amending of the claims in the reply filed 13 April, 2009.

Specification

9. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

10. The abstract of the disclosure is objected to because it is longer than 15 lines and more than 150 words. Correction is required. See MPEP § 608.01(b). In the

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response filed 13 April, 2009 applicants cite a substitute abstract, however the examiner is unable to find the substitute abstract among the papers submitted in the reply.

Claim Objections

11. Claims 1 and 7 are objected to because of the following informalities:

Regarding claim 1, and 7, R¹ to R⁵ of instant formula (I') are understood to have the same meaning as R¹ to R⁵ in instant formula (I) because the structure (fluoranthene) and R numbers are the same in both formulae, however to avoid potential confusion, the meanings of R¹ to R⁵ in instant formula (I') should be included in the claims. Additionally R⁴ and R⁵ should be removed from instant formulae (I) and (I') because R⁴ and R⁵ are no longer variables but are required by the claims to be hydrogen.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

13. Claims 1 and 3 are rejected under 35 U.S.C. 102(a) as being anticipated by Wu et al. (From branched hydrocarbon propellers to C₃-symmetric graphite disks.).

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Regarding claims 1 and 3, Wu et al. disclose a fluoranthene of instant formula (I) wherein R¹ and R³ are phenyl, R² is hydrogen, X is an oligophenyl group as defined by instant formula (VI) in the instant specification (page 6, line 30 to page 7, line 3), and n is 3 (compound 12, scheme 3, page 5183).

14. Claims 1, 3, 7-9, and 11-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Kitamoto et al. (JP H10-189248 A), machine translation relied upon.

Regarding claims 1, 3, 7-9, and 11-13, Kitamoto et al. disclose a fluoranthene of instant formula (I) wherein R¹ and R³ are phenyl, R² is hydrogen, X is biphenyl group, an oligophenyl group as defined by instant formula (IV) in the instant specification (page 5, lines 20-27), and n is 1 ([0018] compound 108). The reference also discloses an organic electroluminescent device comprising the fluoranthene compound [0004] as the light-emitting molecule in the luminescent layer ([0051] and [0061]).

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

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1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

17. Claims 10 and 14-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kitamoto et al. (JP H10-189248 A) as applied to claims 9 and 13 above and in view of Nishi et al. (US 2001/0004190 A1).

Regarding claims 10 and 14-21, Kitamoto et al. disclose all the claim limitations as set forth above. However, the reference does not explicitly disclose the device as part of a television, mobile phone, laptop, or vehicle, which are mobile and stationary visual display units.

Nishi et al. teaches a similar light-emitting diode [0007]. The reference teaches the device may be used in mobile visual display units like a television (figure 13A), a mobile phone (figure 14A), a laptop (figure 13F), or a vehicle (figure 14B, [0219]).

It would be obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Nishi et al. with the device of Kitamoto et al. and use the device of Kitamoto et al. in mobile or stationary visual display units like a television, a mobile phone, a laptop, or a vehicle. One of ordinary skill in the art would reasonably expect such a combination to be suitable given that Nishi et al. teaches organic light-emitting diodes may be used in mobile phones, laptops, or vehicles. One of ordinary skill would be motivated by a desire to utilize the device of Kitamoto et al.

18. Claims 1, 3, 7-9, and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cho et al. (US 2005/0067955 A1).

Regarding claims 1, 3, 7-9, and 11-13, Cho et al. disclose a fluoranthene derivative of the general formula (I) wherein R¹ and R³ are phenyl groups, n equals 2, R², R⁴, and R⁵ are hydrogen ([0041]-[0044]) and X is a 1,3,5-triphenylbenzene group [0026].

While Cho et al. does not exemplify a specific compound with each of these groups this does not negate a finding of obviousness under 35 USC 103 since a preferred embodiment such as an example is not controlling. Rather, all disclosures “including unpreferred embodiments” must be considered. *In re Lamberti* 192 USPQ 278, 280 (CCPA 1976) citing *In re Mills* 176 USPQ 196 (CCPA 1972). Therefore, it would have been obvious to one of ordinary skill in the art to utilize a fluoranthene compound wherein R¹ and R³ are phenyl groups, n equals 2, R², R⁴, and R⁵ are hydrogen and X is a 1,3,5-triphenylbenzene group given that Cho et al. teaches each one. The reference also discloses disclose an organic light-emitting diode [0033] comprising a fluoranthene derivatives described above as a light-emitting material [0020] in the light-emitting layer [0032].

19. Claims 10 and 14-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cho et al. (US 2005/0067955 A1) as applied to claims 9 and 13 above, and in view of Nishi et al. (US 2001/0004190 A1).

Regarding claims 10 and 14-21, Cho et al. disclose all the claim limitations as set forth above. However, the reference does not explicitly disclose the device as part of a television, mobile phone, laptop, or vehicle, which are mobile and stationary visual display units.

Nishi et al. teaches a similar light-emitting diode [0007]. The reference teaches the device may be used in mobile visual display units like a television (figure 13A), a mobile phone (figure 14A), a laptop (figure 13F), or a vehicle (figure 14B, [0219]). It would be obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Nishi et al. with the device of Cho et al. and use the device of Cho et al. in mobile or stationary visual display units like a television, a mobile phone, a laptop, or a vehicle. One of ordinary skill in the art would reasonably expect such a combination to be suitable given that Nishi et al. teaches organic light-emitting diodes may be used in mobile phones, laptops, or vehicles. One of ordinary skill would be motivated by a desire to utilize the device of Cho et al.

Allowable Subject Matter

20. Claim 4 would be allowable if rewritten to overcome all formal requirements or specifically traverse each requirement not complied with, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

21. The following is a statement of reasons for the indication of allowable subject matter: The closest prior art, Kitamoto et al. (JP H10-189248 A), discloses similar fluoranthene compounds wherein X is an alkyl group with $n = 1$, however the reference

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does not teach or suggest $n = 2$. Hosokawa et al. (JP 2002/069044 A), Cho et al. (US 2005/0067955 A1), and Wu et al. (From branched hydrocarbon propellers to C_3 -symmetric graphite disks.) each teach fluoranthene compounds wherein n is 2 or larger, however each reference fails to teach or suggest the linking group X may be an alkyl group.

Response to Arguments

22. Applicant's arguments with respect to claims 1, 3, 4, and 7-21 have been considered but are moot in view of the new ground(s) of rejection which was necessitated by amendment.

Conclusion

23. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

24. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL WILSON whose telephone number is (571) 270-3882. The examiner can normally be reached on Monday-Thursday, 7:30-5:00PM EST, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Larry Tarazano can be reached on (571) 272-1515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

25. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. Lawrence Tarazano/
Supervisory Patent Examiner, Art Unit 1794

MHW